

## CLAIMS

What is claimed is:

1. A method for use in generating a television channel map, comprising:  
selecting a first input of a plurality of inputs;  
5        selecting a first single modulation scheme of a plurality modulation schemes  
on the first input;  
tuning a plurality of channels for the identified single modulation scheme;  
determining if a broadcast is received on each of the channels;  
recording channels that are determined to receive broadcasts in a channel map  
10    according to the plurality of tuned channels for the identified single modulation scheme;  
and  
not performing a full auto-program.
2. The method of claim 1, wherein the not performing the full auto-program  
15    includes terminating an auto-program after evaluating only the first modulation scheme  
without completing an auto-program for any other modulation scheme.
3. The method of claim 2, further comprising:  
determining if the channel map includes an assignment for a first tuned  
20    channel;  
identifying a channel name associated with the first tuned channel; and  
replacing the assignment with the first tuned channel and recording the  
channel and the channel name in the channel map.
- 25        4. The method of claim 1, further comprising:  
scanning a signal modulated by the first modulation scheme;  
identifying channels carrying broadcast information;  
comparing previously defined channel assignments of the channel map with  
the identified channels during the scanning; and  
30        initiating the tuning, the determining and the recording when a difference is  
detected during the comparing the channel assignments.

5. The method of claim 1, further comprising:  
scanning a signal of the single modulation scheme;  
comparing channel assignments of the channel map with identified channels

5 during the scanning; and

initiating the tuning and the recording for the single modulation scheme when  
a difference is detected during the comparing the channel assignments.

6. The method of claim 5, further comprising:

10 identifying a broadcaster associated with at least a first channel of the  
identified channels, and wherein the comparing comprises comparing the broadcaster of  
the first channel with the channel assignments of the channel map; and  
initiating the tuning and the recording for the single modulation scheme when  
a difference is detected with the identified broadcaster.

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7. The method of claim 1, further comprising:

identifying channels not assigned in the channel map associated with the  
modulation scheme;

20 scanning a signal of the single modulation scheme for a first channel of the  
identified channels not assigned in the channel map;

determining if a first broadcast is received over the first channel; and

initiating the tuning and the recording for the single modulation scheme when  
the first broadcast is received over the first channel.

25 8. The method of claim 7, further comprising:

determining if any broadcast is received on each of the identified channels not  
assigned in the channel map; and

initiating the tuning and the recording for the single modulation scheme when  
a broadcast is received over one of the identified channels not assigned.

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9. A method for use in generating a channel map, comprising:

selecting a signal of a plurality of signal to evaluate;

generating a channel map for the signal, comprising:

tuning in the signal;

5 tuning in each of a plurality of channels carried by the signal; and

recording into the channel map each of a plurality of channels that deliver broadcast information; and

limiting the channel map to the signal and not performing a full auto-program.

10 10. The method of claim 9, wherein the limiting further comprises limiting the channel map to the signal and not generating channel map for other signals of the plurality of signals.

11. The method of claim 9, further comprising:

15 determining if a signal quality meets a predefined threshold for each of the plurality of channels that deliver broadcast information prior to recording, wherein the recording comprises recording each of the plurality of channels that have a signal quality that meet the predefined threshold into the channel.

20 12. The method of claim 11, further comprising:

selecting an input of a plurality of inputs such that the signal is received through the selected input.

13. The method of claim 9, further comprising:

25 determining if a channel map exists for the selected modulation scheme; tuning in a first channel that is not recorded in the channel map when a channel map exists;

determining if the signal quality for the tuned in channel meets a predefined threshold; and

initiating the generating of the channel map for the entire selected signal when the signal quality of the tuned in channel that was not previously recorded in the channel map meets the predefined threshold.

5                   14. The method of claim 13, further comprising:  
                  determining a broadcaster of a second channel that has previously been  
                  recorded in the channel map;  
                  comparing the determined broadcaster with a recorded broadcaster previously  
                  recorded in the channel map;  
10                  determining if the determined broadcaster is different than the recorded  
                  broadcaster; and  
                  initiating the generating of the channel map for the entire selected signal when  
                  the determined broadcaster is different than the recorded broadcaster.

15                  15. The method of claim 13, further comprising:  
                  performing the generating of the channel map for the entire selected signal  
                  comprising:  
                  tuning in each of a plurality of channels carried by the signal modulated  
                  with a selected modulation scheme;  
20                  determining which of the plurality of channels have a signal quality that  
                  meets the threshold when tuned in; and  
                  recording each channel of the plurality of channels that have the signal  
                  quality that meets the threshold in to the channel map.

25                  16. The method of claim 15, further comprising:  
                  determining a broadcaster for at least one of the plurality of channels that have  
                  the signal quality that meets the threshold when tuned in; and  
                  recording the broadcaster in the channel map and associating the broadcaster  
                  with the recorded channel.

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17. An apparatus for use in generating a channel map, comprising:  
a plurality of inputs that each receive at least one signal;  
a selecting device coupled with each of the plurality of inputs, wherein the  
selecting device selects a first signal from one of the plurality of inputs;  
5 a tuner coupled with the selecting device, wherein the tuner receives and tunes  
in the selected first signal;  
a processor coupled with the tuner, wherein the processor receives the first  
signal and performs a channel mapping of the first signal while limiting the channel  
mapping to the first signal and not completing a full channel mapping of the other signals  
10 received through the plurality of inputs.

18. The apparatus of claim 17, further comprising:  
a plurality of tuners coupled with the selecting device, each tuner tuning at  
least one of the plurality of signals.

19. The apparatus of claim 18, wherein at least a first tuner of the plurality of  
tuners is a quadrature amplitude modulation (QAM) tuner, and at least a second tuner of  
the plurality of tuners is a National Television Standards Committee (NTSC) tuner.

20. The apparatus of claim 17, further comprising:  
a video processor coupled with the tuner, wherein the video processor  
processes the signal to generate a video output to be displayed; and  
a memory coupled with the processor, wherein the memory stores the channel  
map.